MEMORANDUM

From: Gregory Stella, U.S. EPA, Emission Factor and Inventory Group
Re: Spatial Allocation Files Located on EMCH
Date: March 5, 2002

The purpose of this memorandum is to provide information on the files as found on and directed from CHIEF's Emissions Modeling Clearinghouse (EMCH) website (http://www.epa.gov/ttn/chief/emch/spatial/index.html).

These files have been developed to allow users to identify source category (SCC) associations to the spatial surrogate coverage files currently used by EPA and to develop geographically distributed (grid cells, census tracts, etc.) surrogate information using the provided ArcInfo shape files. Generic filenames will be used in this memo, as the specific versions of these files may change from time to time. It is always best to ensure that you are using the latest available version of these data as possible. Note that these associations have not been developed for any particular model or emissions processor and the user is responsible for converting these data into the appropriate formats for their use.

There are two file types available via this site. The first is the Source Category Code / Spatial Surrogate Cross Reference File. Using this file, you can locate the area, nonroad, or highway mobile SCC for which you wish to allocate to your spatial geography and see which spatial surrogate EPA currently assigns to this emission category. For example, from the Source Category Code / Spatial Surrogate Cross Reference File, locate the SCC 2104001000 [Stationary Source Fuel Combustion; Residential; Anthracite Coal; Total: All Combustor Types].

Table 1. Source Category Code / Spatial Surrogate Cross Reference File

SCC	Surrogate
…	…
2103011010	Population
2104001000	**Housing**
2104002000	Housing
…	…

In this case, the SCC 2104001000 is associated with "Housing" and therefore is allocated to each geographically defined area using housing surrogate ratios. The default surrogate used in cases where an SCC match cannot be made is currently the "Population" surrogate.

The second file type is represented by the ArcInfo shape files and are defined by the Emission Spatial Surrogate document provided on this website. These files can be downloaded directly via EPA's anonymous FTP site at the following location: ftp://ftp.epa.gov/EmisInventory/emiss_shp/.

There are fifteen surrogate coverages currently used by EPA for modeling the continental United States; agriculture, airports, housing, land area, major highways, population, marine ports, railroads, rural population, urban population, rural primary roads, rural secondary roads, urban primary roads, urban secondary roads, and water area. Data type (point, line, polygon) and data source information can be found in the Emission Surrogate Source document also located on this website.

This memorandum does not address the generation of the geographic allocation ratio files used to spatially allocate emissions within emission processors as individual models require different formats and procedures. Please refer to your individual model on how to process and use these data.